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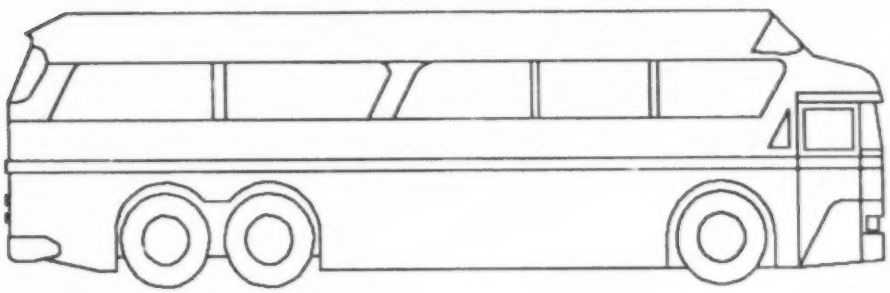
Techdata Sheet

NAVAL CIVIL ENGINEERING LABORATORY
PORT HUENEME, CALIFORNIA 93043

Conversion of Gasoline-Powered Buses to Diesel-Powered Buses



PWC, San Diego operates a fleet of 39 passenger buses ranging in age from 2 to 13 years old. They are in the process of converting thirteen 1980-81 International buses to run on diesel instead of gasoline. Seven of these buses have had their 392-cubic-inch gasoline engines replaced with Navistar (formally International) 6.9-liter diesel engines and have been running for a year. The conversions are done by a contractor. The statistics on the conversions are:

- The conversion costs $10,000. This includes the engine, new accessories, a new radiator, new bearings and labor. Navistar provides a complete conversion kit designed for S series Navistar buses.

- The conversion takes 2 to 3 weeks.

- Mileage increases from 3 mpg for gasoline to 10 mpg for diesel.

- Driver acceptance of the diesel buses is very positive. The converted diesel buses at PWC, San Diego are driven twice as much as the gasoline buses. Drivers prefer the diesel buses because they have more power and are more reliable. The diesel buses are also preferred for long trips.

- The downtime for the gasoline buses is 6 to 7%, while the downtime for the diesel buses is 3%.

- Maintenance of a diesel converted bus is 25% that of a similar age gasoline bus that has already gone through several engines.

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- FY88 budgeting costs are 74 cents per gallon for gasoline and 60 cents per gallon for diesel.

- A new diesel bus costs approximately $30,000.

The program has been extremely successful. The buses at PWC, San Diego average 30,000 miles per year. The fuel cost for a gasoline bus is $7,400/year as compared with $1,800/year for a diesel bus at present fuel rates. Because of the increased fuel savings and decreased maintenance costs, the conversion is paid for within one year. The life of the bus is also extended 5 to 6 years. This is a very practical alternative to purchasing a new bus.

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